

User Panel: How We Implemented Collaborative Robots

Mark Lewandowski
Procter & Gamble



Agenda

- P&G At a Glance
- Why Use Collaborative Robots?
- Selecting Applications for Cobots
- Issues and Barriers



P&G At a Glance

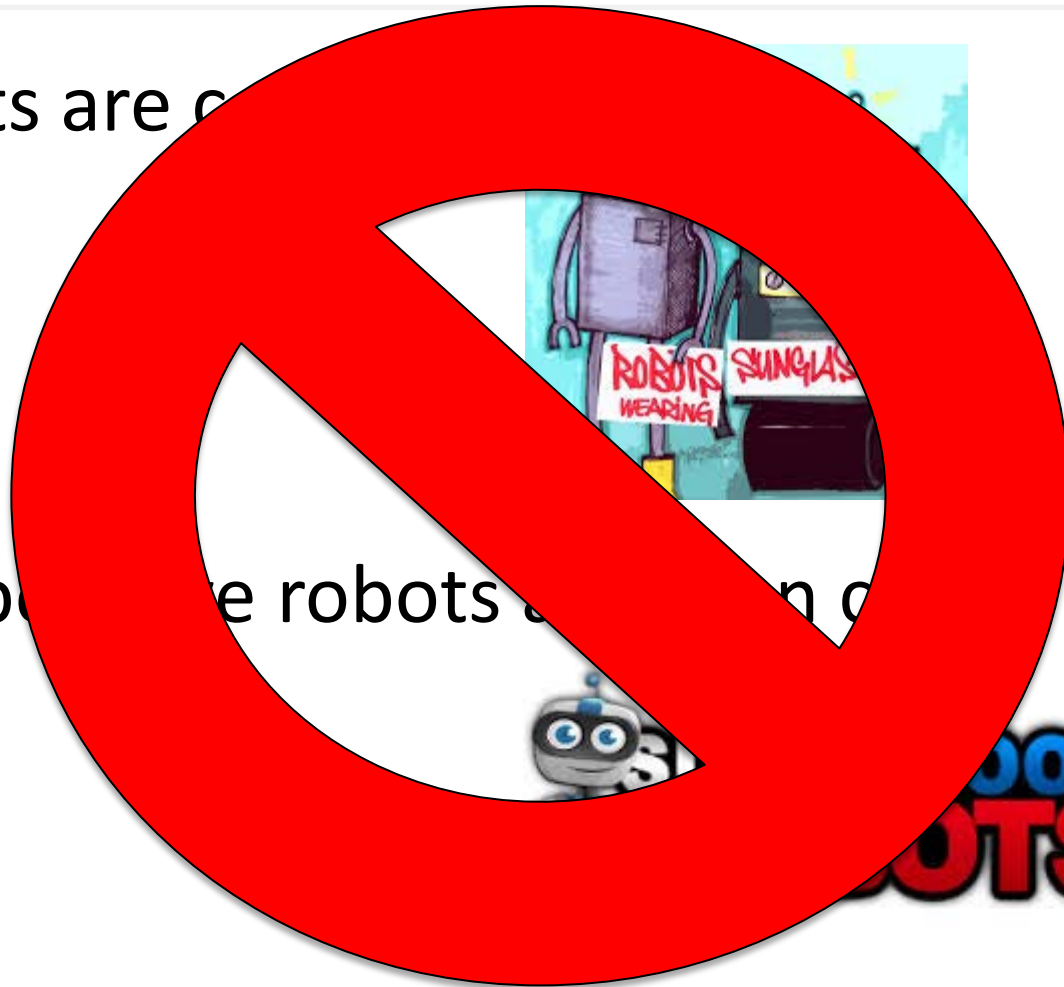
- \$76B in sales
- 21 brands with annual sales > \$1B
- 11 brands with annual sales \$500M - \$1B
- Consumers in more than 180 countries



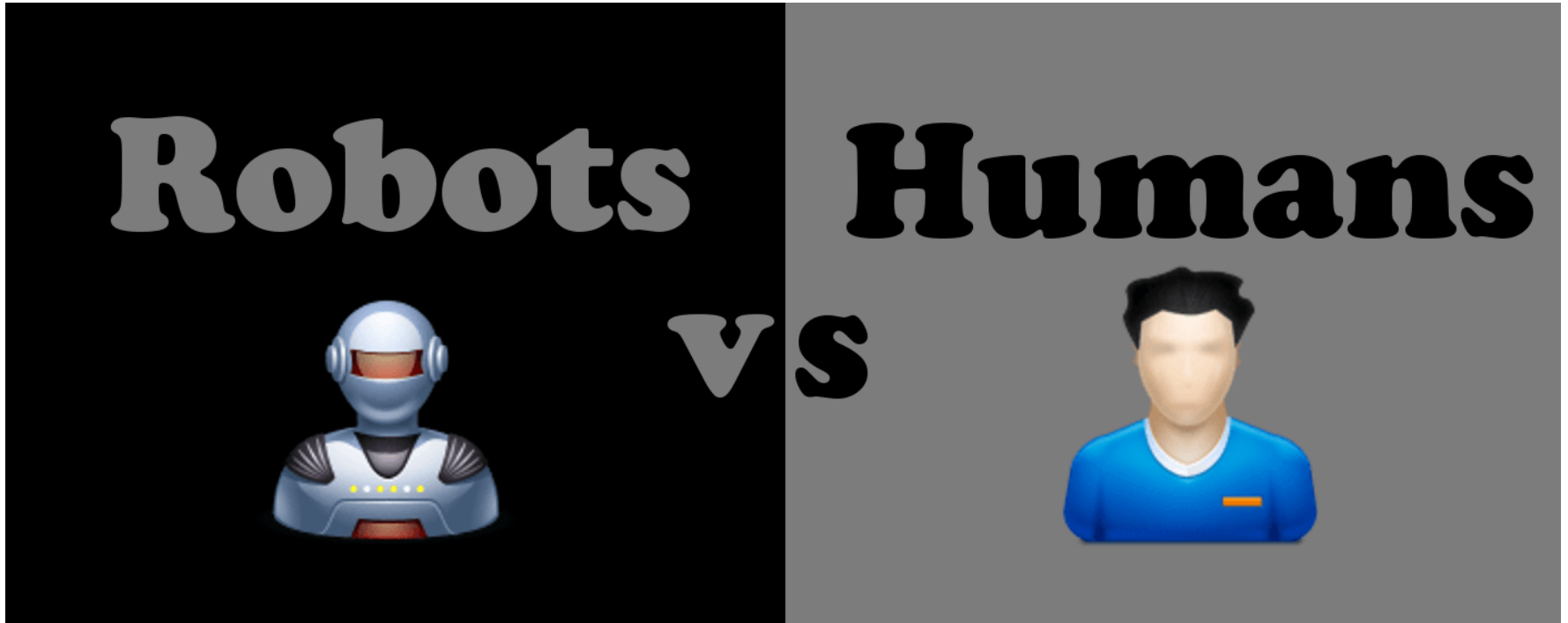
Why Use Collaborative Robots?

- Robots are c

- Collaborative robots are n c!



The Debate



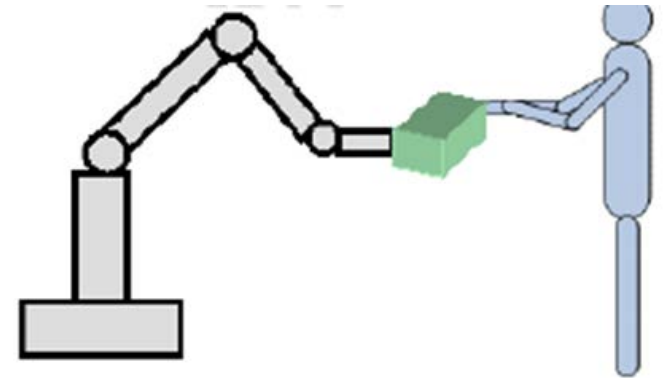
And The Winner Is...

You and Your Business!



Why Use Collaborative Robots?

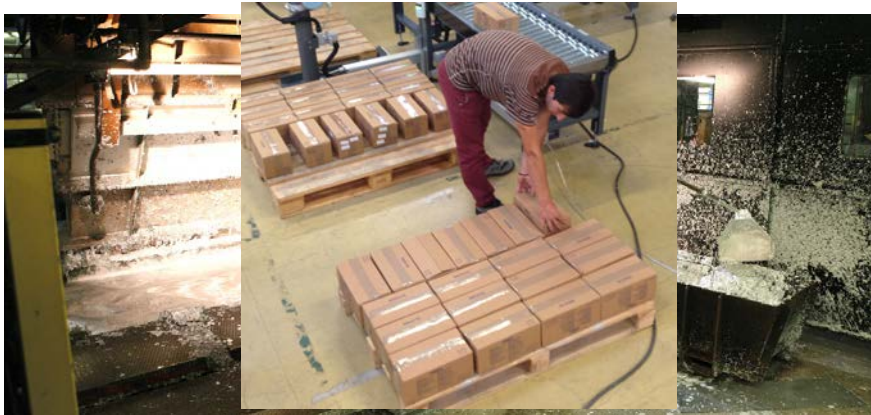
- Simple to implement and use
- Advantages in:
 - Cost of implementing
 - “Cage-Free” Robotics
 - Eliminates guarding
 - Reduces Floor Space
 - Reduced Engineering Costs
 - Flexibility
 - Adaptive and reconfigurable
 - Easy and intuitive programming
 - Portable
 - Move robot to the applications as needed



Selecting Applications - General

For Robotics in General

- Look for processes and tasks that are:
 - Dull
 - Dirty
 - Dangerous/Ergonomic Issues



Selecting Applications - Cobots

Where to Look for Collaborative Applications

- Simple applications
- Highly manual processes
- Similar processes/tasks that are not fully utilized 24/7



Key Collaborative Advantage

Enables partial automation opportunities
where it was “All or Nothing”



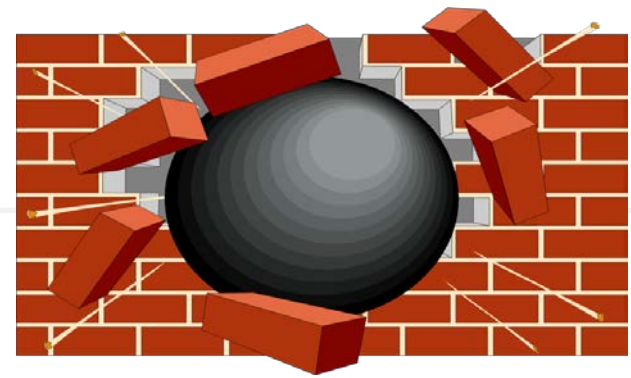
Successful Application Features

Cobots provide value and succeed when:

- Low speed - 6-8 cycles per min
- Low payload - less than 10kg typically
- Little or no robotics expertise available
- Processes/Machinery with Low Utilization
- Processes previously seen as uneconomical or too complex where partial automation may be feasible or desirable



Issues and Barriers



- Acceptance
 - Safety
 - Taking Jobs
- Unrealistic Promises & Expectations
- Safety requirements not well understood
 - How to ensure compliance to new and changing standards
- Rate and Payload Limitations
- Cost



Contact



Mark Lewandowski

Robotics Network Innovation Leader

Procter & Gamble

West Chester, OH USA

+1 (513)634-9011

lewandowski.ml@pg.com

